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| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.     |
|---------------------------------|-------------|----------------------|---------------------|----------------------|
| 10/018,976                      | 03/14/2002  | Manfred Kogler       | 1406/34             | 3027                 |
| 25297                           | 7590        | 10/25/2005           | EXAMINER            |                      |
| JENKINS, WILSON & TAYLOR, P. A. |             |                      |                     | GHULAMALI, QUTBUDDIN |
| 3100 TOWER BLVD                 |             |                      |                     |                      |
| SUITE 1400                      |             |                      |                     |                      |
| DURHAM, NC 27707                |             |                      |                     |                      |
|                                 |             |                      |                     | 2637                 |
| ART UNIT                        |             |                      |                     |                      |
| PAPER NUMBER                    |             |                      |                     |                      |

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                 |
|------------------------------|-----------------|-----------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)    |
|                              | 10/018,976      | KOGLER, MANFRED |
|                              | Examiner        | Art Unit        |
|                              | Qutub Ghulamali | 2637            |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 August 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Acknowledgment*

1. This Office Action is responsive to the Amendment filed on 08/01/2005.
2. The examiner acknowledges applicant's amendment to the abstract of the disclosure.

The abstract of the disclosure is acceptable.

3. Applicant's arguments, see page 4-6, filed 08/01/2005, with respect to the rejection(s) of claim(s) 1, 2-9 under 35 U.S.C. 102(b), have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the newly found art. The rejection follows:

### *Drawings*

4. The drawings are objected to because the unlabeled rectangular box(es) shown in the drawings, Figures 1 and 2, should be provided with descriptive text labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### *Claim Objections*

6. Claims 1, 2, 6-8 objected to because of the following informalities:  
Claim 1, line 4, recites "with it", and "in which case". Similarly, in claims 2 and 6, lines 2 and 3 respectively, "can be" must be replaced with --are--. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Claim 6 recites the limitation "the bandpass filter flanks" in line 3. There is insufficient antecedent basis for this limitation in the claim.

#### *Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (USP 5,058,047).in view of Mathe (USP 6,389,069).

Regarding claim 1, Chung discloses a codec circuit: having a programmable digital bandpass filter (30), for matching the filter characteristics of the codec circuit to a transmitted PCM signal (col. 4, lines 9-13, 19-33, 35-38), having at least one programmable digital high-pass filter (32). Chung however, does not explicitly disclose at least one programmable digital low-pass filter connected in series, wherein the filter coefficients for the programmable digital high-pass and low-pass filters are set, by means of a signal identification device for identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter.

Mathe in a similar field of endeavor discloses (fig. 1):

at least one programmable digital low-pass filter (30-38) connected in series with the high pass filter, wherein the filter coefficients for the programmable digital high-pass (14) and low-pass filters (30-38) are set, by means of a signal identification device (processor 24) for identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a band-pass filter characteristic for the programmable digital band-pass filter (col. 3, lines 1-15, 49-60; col. 5, lines 9-16; col. 8, lines 20-27). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use programmable high-pass and low-pass filters as taught by Mathe in the circuit of Chung because it can provide strategic programmable coefficients maximization control over the composite

transfer function of the programmable digital filter and at the same time mitigate power consumption.

Regarding claim 2, Chung discloses setting filter coefficients are stored in coefficient memory devices, which are associated with the programmable digital high-pass and low-pass filters (col. 5, lines 21-30).

Regarding claim 3, Chung discloses the memory devices can be in the form of a random access memory (RAM) (col. 8, lines 1-3).

Regarding claim 4, Chung discloses memory devices are connected via coefficient setting lines to the signal identification device (col. 7, lines 64-67; col. 8, lines 1-3).

Regarding claim 5, Chung discloses programmable digital filters ((x) 30 and (40)) can be each seventh-order filters (col. 3, lines 23-30; col. 4, lines 35-37, 52-55).

Regarding claims 6-9, Chung discloses programmable filters whose roll-off (cut-off) frequencies of the band-pass filter are set by setting the filter coefficients of the digital high-pass filter quite easily and is well known in the art of filter design.

### *Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### **US Patents:**

Hwang (USP 5341417) discloses an Integrated PCM-CODEC circuit with telemetering noise elimination

Kakulshi et al (USP5610943) shows a Signal processing apparatus using two pulse code modulation coder/decoder (PCM-CODEC) and DSP processor

Fielder et al (USP 6226608) discloses a data framing adaptive block length coding system.

Ruether et al (USP6052412) discloses a CODEC supporting PCM communication system.

Gotoh et al (USP 5621760) discloses speech coding transmission system and coder and decoder thereof.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014.

The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.  
October 18, 2005.

*Jean Corrielus*  
JEAN B. CORRIELUS  
PRIMARY EXAMINER  
10-22-05